

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A device to eliminate trimmings or scraps from series of products comprising[[:]] at least ~~a~~ one continuous movable flexible member ~~(23)~~ carrying a series of contact members ~~(29, 29A, 29B)~~ for the products ~~(R, R1, RN)~~ aligned with one another, a section of said movable flexible member being devoid of said contact members to allow trimmings ~~(Rc, Rt)~~ to fall; at least ~~a~~ one longitudinal supporting element ~~(21)~~ of the products ~~(R, R1, RN)~~, parallel to said movable flexible member, ~~the~~ a reciprocal position of said flexible member and of said longitudinal supporting element being such that the products advance in contact with the contact members ~~(29, 29A, 29B)~~ of the flexible member and with the longitudinal supporting element; at least ~~a~~ one pusher ~~(11)~~ to insert the series of products with respective trimmings between said flexible member and said longitudinal supporting element; ~~characterized in that~~ wherein said flexible member ~~(23)~~ is controlled with a variable speed to carry the section thereof devoid of contact members every time to ~~the~~ a level of ~~the~~ tail and head trimmings ~~(Rc, Rt)~~ of two consecutive series of products.

2. (Currently Amended) Device as claimed in claim 1, ~~characterized in that~~ wherein said longitudinal supporting element ~~(21)~~ is fixed.

3. (Currently Amended) Device as claimed in claim 1, ~~or 2, characterized in that~~ wherein said continuous flexible member ~~(23)~~ has at least ~~a~~ one first contact member ~~(29B)~~ designed to grasp at least ~~the~~ a last product ~~(R1)~~ of each series and make ~~it~~ the last product advance.

4. (Currently Amended) Device as claimed in claim ~~1, 2 or 3, characterized in that~~ 3, wherein said continuous flexible member ~~(23)~~ has at least ~~a~~ one second contact member ~~(29A)~~ designed to grasp at least ~~the~~ a first product ~~(R1)~~ of each series and make ~~it~~ the first product advance.

5. (Currently Amended) Device as claimed in ~~one or more of the previous claims, characterized in that~~ claim 1, wherein at least some of the contact members ~~(29)~~ are provided with a contact surface for the products having a low friction coefficient, to allow said products to slide with respect to said at least one longitudinal supporting ~~members~~ element.

6. (Currently Amended) Device as claimed in ~~one or more of the previous claims, characterized in that~~ claim 1, wherein said flexible member ~~(23)~~ is controlled at a variable speed to accelerate at least ~~the~~ a last product

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~~(RN)~~ of each series with respect to the pusher therebehind
~~(11)~~.

7. (Currently Amended) Device as claimed in ~~one or more of the previous claims, characterized in that~~ claim 1, wherein said flexible member ~~(23)~~ is controlled at a variable speed to accelerate and, ~~if necessary optionally,~~ subsequently decelerate, at least ~~the~~ a first product ~~(R1)~~ of each series with respect to ~~the~~ a subsequent product.

8. (Currently Amended) Device as claimed in ~~one or more of the previous claims, characterized in that~~ claim 1, wherein said flexible member ~~(23)~~ is controlled to advance at a lower speed or to stop during an interval of time between arrival of ~~the~~ a first product ~~(R1)~~ and arrival of ~~the~~ a last product ~~(RN)~~ of each series, during said interval of time the products being pushed by said pusher ~~(11)~~ and sliding along the flexible member ~~(23)~~ resting on the contact members ~~(29)~~.

9. (Currently Amended) Device as claimed in ~~at least claims 3 and 4, characterized in that~~ claim 3 or 4, wherein one or more of said contact members ~~(29A, 29B)~~ disposed at each end of the series of contact members carried by said flexible member ~~(23)~~, adjacent to said portion of the flexible member devoid of contact members, can be operated

to have ~~an~~ a grasping effect on the products in contact therewith.

10. (Currently Amended) Device as claimed in ~~one or more claims 3, 4 or 8,~~ characterized in that claim 3 or 4, wherein said contact ~~member or~~ members designed to grasp said products are mounted movable, with respect to the flexible member ~~(23)~~ which carries ~~them~~ the contact members, at least in a direction essentially orthogonal to said flexible member.

11. (Currently Amended) Device as claimed in ~~one or more of claims 3, 4, 9 and 10,~~ characterized in that claim 3 or 4, wherein the contact members ~~(29A, 29B)~~ designed to grasp the products have a movable portion ~~(31, 33, 33T, 29X).~~

12. (Currently Amended) Device as claimed in claim 11, ~~characterized in that~~ wherein a fixed control profile ~~(37)~~ acts on said movable portions, an elastic element ~~(35)~~ being provided to hold each of said movable ~~portion~~ portions in contact with said fixed control profile.

13. (Currently Amended) Device as claimed in ~~one or more of the previous claims,~~ characterized in that claim 1, wherein said flexible member ~~(23)~~ and said longitudinal supporting element ~~(21)~~ are arranged one above the other.

14. (Currently Amended) Device as claimed in claim 13, ~~characterized in that~~ wherein said flexible member ~~(23)~~ and said longitudinal supporting element ~~(21)~~ are approximately vertically overlapped with each other.

15. (Currently Amended) Device as claimed in claim 13, ~~characterized in that~~ wherein said flexible member ~~(23)~~ is laterally staggered with respect to said longitudinal supporting element ~~(21)~~.

16. (Currently Amended) Device as claimed in ~~any one of claims 13 to 15, characterized in that~~ claim 13, wherein said longitudinal supporting element is positioned under said flexible member.

17. (Currently Amended) Device as claimed in ~~one or more of the previous claims, characterized in that~~ claim 1, wherein said flexible member ~~(23)~~ is controlled to be accelerated synchronously with ~~the~~ a position of said pusher, to distance ~~the~~ a last product ~~(RN)~~ of each series from the pusher therebehind.

18. (Currently Amended) Device as claimed in ~~one or more of the previous claims, characterized in that~~ claim 1, wherein said flexible member ~~(23)~~ is controlled to be accelerated synchronously with ~~the~~ a position of said pusher, to distance ~~the~~ a first product of each series at least temporarily from ~~the~~ a subsequent product.

19. (Currently Amended) Device as claimed in ~~one or more of the previous claims, characterized in that~~ claim 1, wherein said flexible member ~~(23)~~ includes a pair of parallel chains, one of said chains being provided with a plurality of intermediate contact members ~~(29)~~, said intermediate contact members being arranged in a laterally staggered position with respect to said longitudinal supporting element ~~(21)~~.

20. (Currently Amended) Device as claimed in ~~claims 3 and 19, characterized in that~~ claim 3, wherein said first contact member ~~(29B)~~ designed to grasp at least the last product ~~(R1)~~ of each series of products includes two shoes ~~(29X)~~ and ~~that~~ means are provided to control a grasping motion of said shoes.

21. (Currently Amended) Device as claimed in ~~claims 4 and 19 or 4 and 20, characterized in that~~ claim 4, wherein said second contact member ~~(29A)~~ designed to grasp at least the first product ~~(R1)~~ of each series of products includes two shoes ~~(29X)~~ and ~~that~~ means are provided to control a grasping motion of said shoes.

22. (Currently Amended) Device as claimed in claim ~~20, or 21, characterized in that~~ wherein the two shoes ~~(29X)~~ of said first ~~and second~~ contact ~~members~~ member ~~(29A, 29B)~~

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are controlled by a fixed cam profile, which controls a closing motion of said shoes.

23. (Currently Amended) Device according to ~~one or more of claims 20, 21 or 22, characterized in that~~ claim 20, wherein said flexible member includes a pair of parallel chains, one of said chains being provided with a plurality of intermediate contact members, said intermediate contact members being arranged in a laterally staggered position with respect to said longitudinal supporting element and wherein each shoe ~~(29X)~~ of said first ~~or second~~ contact member ~~(29B, 29A)~~ is carried by a respective one of said chains.

24. (Currently Amended) Device as claimed in claim ~~3 or 4, characterized in that~~ 4, wherein at least one of said first contact member or said and second contact ~~members~~ member ~~(29A, 29B)~~ designed to grasp said products ~~include~~ includes jaws_ or pliers_-shaped grasping members.

25. (Currently Amended) Device as claimed in ~~one or more of the previous claims, characterized in that~~ claim 1, wherein said at least one pusher has a slot ~~(11A)~~ in which the longitudinal supporting element ~~(21)~~ penetrates when said pusher pushes the products between the longitudinal supporting element and the flexible member.

26. (Currently Amended) Device as claimed in ~~one or more of the previous claims, characterized in that~~ claim 1, wherein said products are rolls obtained from cutting a log.

27. (Currently Amended) Method to eliminate head and tail trimmings ~~(Rt, Rc)~~ from a series of aligned products ~~(R, R1, RN)~~, ~~wherein comprising pushing~~ a series of products ~~is pushed~~ by a pusher ~~(11)~~ between a longitudinal supporting element ~~(21)~~ and a continuous movable flexible member ~~(23)~~ equipped with contact members ~~(29, 29A, 29B)~~, said contact members being in contact with the products which advance between said flexible member and said longitudinal supporting element, said flexible member having a section devoid of contact members at ~~the~~ a level of ~~the~~ head and tail trimmings ~~(Rt, Rc)~~ of said series of products to cause said trimmings to fall, ~~characterized in that~~ wherein said flexible member ~~(23)~~ is controlled at a variable speed to carry the section thereof devoid of contact members every time to the level of the head and tail trimmings ~~(Rc, Rt)~~ of two consecutive series of products.

28. (Currently Amended) Method as claimed in claim 27, ~~characterized in that~~ wherein said longitudinal supporting element is held fixed.

29. (Currently Amended) Method as claimed in claim 27 or 28, ~~characterized in that~~ wherein said products are made

to advance parallel to said supporting element and at least ~~the~~ a last product of each series is grasped by means of said contact members to make said last product advance along said supporting element by means of said flexible member ~~(23)~~ when said pusher ~~(11)~~ loses contact with the series of products.

30. (Currently Amended) Method as claimed in claim 29, ~~characterized in that the~~ wherein speed of said flexible member is varied to accelerate at least the last product of each series to distance said last product from said pusher.

31. (Currently Amended) Method as claimed in ~~one or more of claims 28 to 30, characterized in that the~~ claim 28, wherein the speed of said flexible member is varied to accelerate ~~the~~ a first product ~~(R1)~~ of each series to distance said first product from ~~the~~ a subsequent product.

32. (Currently Amended) Method as claimed in claim 31, ~~characterized in that~~ wherein the first product of each series is subsequently decelerated, ~~said~~ acceleration and subsequent deceleration of the first product guaranteeing that ~~the~~ a head trimming ~~(Rt)~~ of each series of products falls.

33. (Currently Amended) Method as claimed in ~~one or more of claims 27 to 32, characterized in that~~ claim 27, wherein said contact members are temporarily stopped or made

to advance at least temporarily at a lower speed to ~~the~~ advance speed of the products determined by ~~the~~ speed with which they are pushed by ~~the~~ a respective one of said at least one pusher, the products sliding with respect to said contact members while resting thereon.

34. (Currently Amended) Method as claimed in ~~one or more of claims 27 to 33~~, characterized in that claim 27, wherein said longitudinal supporting element is disposed under said flexible member.

35. (Currently Amended) Method as claimed in ~~one or more of claims 27 to 34~~, characterized in that claim 27, wherein said flexible member and said longitudinal supporting element are essentially vertically overlapped with each other.

36. (Currently Amended) Method as claimed in ~~one or more of claims 27 to 35~~, characterized in that claim 27, wherein one or more of said contact members are pressed at least temporarily against ~~the~~ a last product of each series, to grasp said last product.

37. (Currently Amended) Method as claimed in ~~one or more of claims 27 to 36~~, characterized in that claim 27, wherein one or more of said contact members are pressed at least temporarily against ~~the~~ a first product of each series, to grasp said first product.

38. (Currently Amended) Method as claimed in ~~one or more of claims 27 to 35, characterized in that~~ claim 27, wherein at least one of said contact members laterally grasp ~~the~~ a first product or ~~the~~ a last product of each series of products.

39. (Currently Amended) Method as claimed in ~~one or more of claims 27 to 38, characterized in that~~ claim 27, wherein said pusher is made to advance between said flexible member and said longitudinal supporting element.

40. (Currently Amended) Method as claimed in claim 39, ~~characterized in that~~ wherein said longitudinal supporting element is made to penetrate a slot produced in said pusher to allow advance of the pusher and inversion of ~~the~~ trajectory thereof.

41. (Currently Amended) Method as claimed in ~~one or more of claims 27 to 40, characterized in that~~ claim 27, wherein said products are rolls obtained by cutting a log.

42. (Currently Amended) A cutting machine to cut logs of web material wound in rolls, ~~characterized in that it comprises~~ comprising a device to eliminate ~~the~~ trimmings as claimed in one ~~or more of claims 1 to 26~~ or 27.

43. (New) Device as claimed in claim 21, wherein the two shoes of said second contact member are controlled by a

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fixed cam profile, which controls a closing motion of said shoes.

44. (New) Device according to claim 21, wherein said flexible member includes a pair of parallel chains, one of said chains being provided with a plurality of intermediate contact members, said intermediate contact members being arranged in a laterally staggered position with respect to said longitudinal supporting element and wherein each shoe of said second contact member is carried by a respective one of said chains.